

CARDIOVASCULAR RESEARCH

EDITOR
P SLEIGHT

ASSISTANT EDITOR
D H BERGEL

H AARS
J O ARNDT
G C VAN DEN BOS
J D BRISTOW
N L BROWSE
S M COBBE
P CUMMINGS
P H FENTEM
P FOËX
W KÜBLER

G MANCIA
J M MARSHALL
R PALMER
J R PARRATT
P PERONNEAU
P A POOLE-WILSON
A E G RAINE
R S RENEMAN
D H WILLIAMSON
N WOOLF

EDITOR *British Heart Journal*
EDITOR *British Medical Journal*
TECHNICAL EDITOR OLIVER BROOKE

VOLUME 25, 1991

LONDON · BRITISH MEDICAL ASSOCIATION · TAVISTOCK SQUARE WC1H 9JR

CARDIOVASCULAR RESEARCH

EDITOR

P SLEIGHT

ASSISTANT EDITOR

D H BERGEL

H AARS
J O ARNDT
G C VAN DEN BOS
J D BRISTOW
N L BROWSE
S M COBBE
P CUMMINGS
P H FENTEM
P FOËX
W KÜBLER

G MANCIA
J M MARSHALL
R PALMER
J R PARRATT
P PERONNEAU
P A POOLE-WILSON
A E G RAINE
R S RENEMAN
D H WILLIAMSON
N WOOLF

EDITOR *British Heart Journal*

EDITOR *British Medical Journal*

TECHNICAL EDITOR OLIVER BROOKE

VOLUME 25, 1991

LONDON · BRITISH MEDICAL ASSOCIATION · TAVISTOCK SQUARE WC1H 9JR

CONTENTS

No 1 JANUARY 1991

Instructions to authors	1
Hypoxic reperfusion to remove ischaemic catabolites prior to arterial reperfusion does not limit the size of myocardial infarcts in dogs: Masaru Tanaka, Richard C Earnhardt, Charles E Murry, Vincent J Richard, Robert B Jennings, Keith A Reimer	7
Role of the inward rectifier I_{K1} in the myocardial response to hypoxia: Elena Ruiz-Petrich, Fabien de Lorenzi, Denis Chartier	17
Reversible effects of ethanol in utero on cardiac sarcoplasmic reticulum of guinea pig offspring: Nancy A Staley, John D Tobin Jr	27
Depressant effect of adenosine in isolated human and canine atrial fibres: Gern-Yao Wang, Jeng Wei, Cheng-I Lin	31
Variable non-linearity in end systolic pressure-volume relationships results from interaction between end diastolic and developed pressure-volume relations: William P Santamore, J Thomas Peterson, William E Johnston, Jakob Vinten-Johansen	36
Effects of acetylcholine on different muscarinic receptors in the perfused porcine ear vein: Eva Schneider, Wolfgang Felix	42
Arrhythmogenic properties of the ventricular myocardium in cardiomyopathic Syrian hamster, BIO 14.6 strain: Osamu Hano, Takao Mitsuoka, Yoriaki Matsumoto, Rafique Ahmed, Masanobu Hirata, Tetsuya Hirata, Mitsuhiro Mori, Katsusuke Yano, Kunitake Hashiba	49
Bidirectional function of coronary collateral channels in conscious dogs: Masatoshi Fujita, Daniel P McKown, Michael D McKown, Dean Franklin	58
Vasopressin and angiotensin II contribute equally to the increased afterload in rabbits with heart failure: Leonard Arnolda, Barry P McGrath, Colin I Johnston	68
Aortic valve morphology influences regurgitant volume in aortic regurgitation: in vitro evaluation: Paul A Grayburn, Eric J Eichhorn, Robert C Eberhart, John B Bedotto, M Elizabeth Brickner, Anne L Taylor	73
Maldistribution of heterogeneous coronary blood flow during canine endotoxin shock: A B Johan Groeneveld, Antoine A van Lambalgen, Gerard C van den Bos, Willem Bronsveld, Jos J P Nauta, Lambertus G Thijs	80

No 2 FEBRUARY 1991

Reduction of experimental myocardial infarct size by oral administration of α tocopherol: Robert A Axford-Gatley, Gregory J Wilson	89
Failure of cyclo-oxygenase inhibition to protect against arrhythmias induced by ischaemia and reperfusion: implications for the role of prostaglandins as endogenous myocardial protective substances: Cherry L Wainwright, J R Parratt	93

Myocardial protection with verapamil during ischaemia and reperfusion: dissociation between myocardial salvage and the degree of ATP depletion during ischaemia: Christopher L Wolfe, Thomas J Donnelly, Richard Sievers, William W Parmley	101
End systolic pressure-length relations in halothane anaesthetised dogs: effects of regional ischaemia and inotropic agents: J G G Victory, P Foëx, B J Leone	110
Reflection as a cause of mid-systolic deceleration of pulmonary flow wave in dogs with acute pulmonary hypertension: comparison of pulmonary artery constriction with pulmonary embolisation: Youichiroh Furuno, Yasuo Nagamoto, Masasuke Fujita, Tohru Kaku, Syugo Sakurai, Akio Kuroiwa	118
Enhanced circulating levels of neurally derived calcitonin gene related peptide in spontaneously hypertensive rats: Mone Zaidi, Peter J R Bevis	125
Role of the endothelium in modulation of the acetylcholine vasoconstrictor response in porcine coronary microvessels: Paul R Myers, Peter F Banitt, Ricardo Guerra Jr, David G Harrison	129
Ventricular function and Na⁺K⁺-ATPase activity and distribution with chronic supraventricular tachycardia: Francis G Spinale, Andrew P Pearce, Bradley A Schulte, Fred A Crawford	138
Activity of receptors coupled to guanine nucleotide binding regulatory protein in doxorubicin induced cardiomyopathy: Liang-Xiong Fu, Klas-Göran Sjögren, Qi-Ming Liang, Finn Waagstein, Johan Hoebeke, Ake Hjalmarson	145
Influence of adenosine on the stimulatory effect of isoprenaline and insulin on myocardial contractility in vivo: William R Law, Pamela J Carney, Michael P McLane	151
Changes in myocardial energy metabolism in elective coronary angioplasty: Keijo Peuhkurinen, Markku Ikäheimo, Juhani Airaksinen, Heikki Huikuri, Markku Linnaluoto, Juha Takkunen	158
Improvement in contractile recovery of isolated rat heart after cardioplegic ischaemic arrest with endogenous phosphocreatine: involvement of antiperoxidative effect?: Eugene A Conorev, Victor G Sharov, Valdur A Saks	164
Rapid communication:	
Activated human polymorphonuclear leucocytes reduce rabbit papillary muscle function: role of the CD18 glycoprotein adhesion complex: Rosemary Kraemer, C Wayne Smith, Kevin M Mullane	172
Book review: Cardiac hypertrophy and failure. <i>B Swynghedauw, ed.</i>	176

No 3 MARCH 1991

Effect of dipyridamole alone and in combination with aspirin on whole blood platelet aggregation, PGI₂ generation, and red cell deformability ex vivo in man: Abdollah R Saniabadi, Timothy C Fisher, Margaret McLaren, Jill F Belch, Charles D Forbes	177
Single bolus administration of recombinant tissue plasminogen activator: effects on infarct related vessel patency, microvascular perfusion, and microvascular reocclusion in a canine model of thrombotic occlusion/reperfusion: David J Longridge, Michael J Follenfant, Alison J Ford	184

Response of plasma atrial natriuretic factor to experimentally induced aortic and mitral regurgitation in dogs: Takashi Masuda, Kiyotaka Satoh, Kenji Ando, Toshihiko Takamoto, Fumiaki Marumo	192
Oxygen supply and oxygen demand in the isolated working rabbit heart perfused with asanguineous crystalloid solution: T Murashita, R D Kempsford, D J Hearse	198
Left ventricular surface tissue oxygen pressures determined by oxygen sensitive multiwire electrodes in pigs: Peter F Conzen, Helmut Habazettl, Michael Christ, Hans Baier, Jonny Hobbhahn, Brigitte Vollmar, Klaus Peter	207
Frequency dependent effects of tocainide, quinidine, and flecainide on conduction as reflected in the rise time of the monophasic action potential in the isolated guinea pig heart: B Göran, D Duker	217
Antiarrhythmic drugs preferentially produce conduction block at the area of slow conduction in the re-entrant circuit of canine atrial flutter: comparative study of disopyramide, flecainide, and E-4031: Hiroshi Inoue, Takeshi Yamashita, Masahiro Usui, Akira Nozaki, Tsuneaki Sugimoto	223
Negative chronotropic but no antiarrhythmic effect of (+)- and (-)- nalozone in rats and guinea pigs: Michael Kaschube, Helmut Brasch	230
Determinants of action potential duration in neonatal rat ventricle cells: Bernard Fermini, Otto F Schanne	235
5-Hydroxytryptamine mediates endothelium dependent coronary vasodilatation in the isolated rat heart by the release of nitric oxide: Pankaj S Mankad, Adrian H Chester, Magdi H Yacoub	244
Association between apolipoprotein E phenotype and endogenous cholesterol synthesis as measured by deuterium uptake: Rebecca P Roe, Peter J H Jones, Jiri J Frohlich, Dale A Schoeller	249
Responses of the rabbit epicardial coronary artery to acetylcholine and adrenoceptor agonists: Laura Corr, Geoffrey Burnstock, Philip Poole-Wilson	256
Notice	263
Correspondence	263

No 4 APRIL 1991

Comparison of selective arginine vasopressin V₁ and V₂ receptor antagonists on burn shock in the rat: Kang Sun, Baocheng Lin, Chenghai Wang, He-nian Zhu	265
Effect of nisoldipine on atherosclerosis in the cholesterol fed rabbit: endothelium dependent relaxation and aortic cholesterol content: C Tissa Kappagoda, Alan B R Thomson, Manohara P J Senaratne	270
Pathological basis of failure of concurrent glyceryl trinitrate therapy to improve efficacy of tissue type plasminogen activator in coronary thrombosis: F A Nicolini, W W Nichols, T G P Saldeen, J L Mehta	283
α_1 Adrenoceptor subtype mediates noradrenaline induced contraction of the human internal mammary artery: radioligand and functional studies: Maurizio Bevilacqua, Tarcisio Vago, Angela Monopoli, Gabriella Baldi, Angelo Forlani, Carlo Antona, Paolo Biglioli, Roberto Scrofani, Guido Norbiato	290
Non-uniform and non-linear end systolic pressure-length relations at low left ventricular pressures in anaesthetised cats: Erik Hexeberg, Knut Matre, Jon Lekven	295

Slow recovery of conduction velocity from use dependent inhibition induced by quinidine in guinea pig ventricular myocardium: Junichi Hasegawa, Takahiro Nawada, Shozo Hirai, Yasutaka Kurata, Kazuhide Ogino, Hiroshi Kotake, Hiroto Mashiba	302
Effect of ventilatory strategy on cardiac output during high frequency jet ventilation: Jay H Traverse, Heikki Korvenranta, Waldemar A Carlo	309
Effect of acute anaesthesia on synthesis of contractile and non-contractile proteins of heart muscle and mixed proteins of types I and II fibre rich skeletal muscles of rat: T Siddiq, P J Richardson, I A Hashim, V R Preedy	314
Diltiazem at reperfusion reduces neutrophil accumulation and infarct size in dogs with ischaemic myocardium: Guy Rousseau, Gilles St-Jean, Jean-Gilles Latour, Yahye Merhi, Stanley Nattel, David Waters	319
Ventricular function and contractile proteins in the infarcted overloaded rat heart: David L Geenen, Ashwani Malhotra, Deren Liang, James Scheuer	330
Postischaemic reperfusion injury in the isolated rat heart: effect of ruthenium red: Vincent M Figueredo, Karl P Dresdner Jr, Arlene C Wolney, Andrew M Keller	337
Contraction-excitation feedback in an ejecting whole heart model - dependence of action potential duration on left ventricular diastolic and systolic pressures: David S Coulshed, J Campbell Cowan	343

No 5 MAY 1991

Angiotensin-II acts centrally to alter renal sympathetic nerve activity and the intrarenal renin-angiotensin system: L Bruce Weekly	353
Frequency dependent myocardial potassium fluxes during β adrenergic stimulation of intact pig hearts: Øyvind Ellingsen, Ole M Sejersted, Øystein A Vengen, Arnfinn Ilebekk	364
Endogenous plasma Na,K-ATPase inhibitory activity and digoxin like immunoreactivity after acute myocardial infarction: Alexey Ya Bagrov, Olga V Fedorova, Marina N Maslova, Natalia I Roukoyatkina, Maria V Ukhanova, Eugenii P Zhabko	371
Quantitative indices of dispersion of refractoriness for identification of propensity to re-entrant ventricular tachycardia in a canine model of myocardial infarction: Satoshi Ogawa, Izumi Furuno, Yoshihiro Satoh, Shisei Yoh, Kimiko Saeki, Tsuneaki Sadanaga, Hiroshi Katoh, Yoshiro Nakamura	378
Increased arterial oxygen content - an important compensatory mechanism in chronic moderate heart failure: Bo Herrlin, Christopher Sylvén	384
Effect of BN 50739, a new platelet activating factor antagonist, on ischaemia induced ventricular arrhythmias in isolated working rat hearts: Matyas Koltai, Arpad Tasaki, David Hosford, André Esanu, Pierre Braquet	391
Hydrodynamic and energetic aspects of exogenous free fatty acid perfusion in the isolated rat heart during high flow anoxia and reoxygenation: a ^{31}P magnetic resonance study: Sylvia Pietri, Monique Bernard, Patrick J Cozzone	398
Effect of glibenclamide on extracellular potassium accumulation and the electrophysiological changes during myocardial ischaemia in the arterially perfused interventricular septum of rabbit: Martin N Hicks, Stuart M Cobbe	407

Inhibition by barium and glibenclamide of the net loss of $^{86}\text{Rb}^+$ from rabbit myocardium during hypoxia: C Jiang, T Crake, P A Poole-Wilson	414
Role of membrane potential in Ba^{2+} induced automaticity in guinea pig cardiac myocytes: Fermin Valenzuela, Mario Vassalle	421
Adrenaline inhibits adenosine diphosphate induced intravascular aggregation of rat platelets through stimulation of α_2 adrenoceptors: Adebayo O Oyekan, Jack H Botting	431
Rapid communication:	
Systemic vasoconstriction induced by inhibition of nitric oxide synthesis is attenuated in conscious dogs with heart failure: Dietmar Elsner, Andreas Müntze, Eckhard P Kromer, Günther A J Riegger	438
Notices	440
Correction: Grayburn <i>et al</i> , 1991	440

No 6 JUNE 1991

Protective effect of preconditioning on reperfusion induced ventricular arrhythmias of isolated rat hearts: Mitsuru Osada, Takeshi Sato, Sadayoshi Komori, Kohji Tamura	441
Nicorandil suppresses early afterdepolarisation and ventricular arrhythmias induced by caesium chloride in rabbits in vivo: Naohiko Takahashi, Morio Ito, Tetsunori Saikawa, Makoto Arita	445
Effects of digoxin, propranolol, and verapamil on exercise in patients with chronic isolated atrial fibrillation: Masako Matsuda, Yasuo Matsuda, Takashi Yamagishi, Tetsuro Takahashi, Masahiko Haraguchi, Toshihiko Tada, Reizo Kusukawa	453
Ventricular fibrillation threshold is influenced by left ventricular stretch and mass in the absence of ischaemia: Stacy Rosen, Maria Lahorra, Michael V Cohen, Peter Buttrick	458
Adaptive mechanisms of the aorta and left ventricle to volume overloading following abrupt aortic regurgitation in rabbits: Yumiko Wainai	463
Sequential echocardiographic-Doppler assessment of left ventricular remodelling and mitral regurgitation during evolving experimental heart failure: Robert J Howard, Gordon W Moe, Paul W Armstrong	468
Neither ventricles nor afterload relief influence the raised plasma atrial natriuretic factor induced by volume expansion in the spontaneously hypertensive rat: Danielle Lachance, Raul Garcia	475
Nicardipine and cardiac hypertrophy: effects on left ventricular mass. Haemodynamics and mechanical performance in renovascular hypertensive rats: J Grellet, S Bonoron-Adèle, B Stuyvers, L Tariosse, P Besse	484
The contribution of ischaemia to the development of microvascular incompetence in the myocardium: Linda Maxwell, John Bevan Gavin	491
Effects of diltiazem as an additive to St Thomas's Hospital cardioplegic solution in isolated neonatal and adult rabbit hearts: T Murashita, D J Hearse, M Avkiran	496
Effects of chronic amiodarone treatment on human myocardial β adrenoceptor density and adenylate cyclase response: Reidar Bjørnerheim, Tor Frøysaker, Vidar Hansson	503

Effect of α adrenergic agents and phorbol esters on phosphorylation of sarcolemmal proteins in beating guinea pig hearts: Istvan Edes, Laszlo Talosi, Evangelia G Kranias	510
A combination of inactivated sodium channel blockers causes competitive interaction of dV/dt_{max} of single ventricular myocytes: Kaichiro Kamiya, Itsuyo Kodama, Junji Toyama	516
Comparison of estimates of cardiac output by indicator dilution and freon 22 uptake during gas mixing in dogs: Hazel A Jones, S Lakshminarayan, J M Becket, J M B Hughes	523
Notice	528
Correction: Corr <i>et al</i> , 1991	528

No 7 JULY 1991

Route dependent effects of 2-chloroadenosine and theophylline in isolated perfused guinea pig hearts: H W Wei, G S Friedrichs, G F Merrill	529
Phosphodiesterase inhibitors and the cardiac sarcoplasmic reticulum calcium release channel: differential effects of milrinone and enoximone: Stephen R M Holmberg, Alan J Williams	537
The cellular basis of intrinsic sinus node recovery time: F J Prinsze, L N Bouman	546
Endogenous atrial natriuretic factor is involved in the natriuresis following sodium loading in rats with chronic heart failure: Helmut Drexler, Claudia Hirth-Dietrich, Johannes-Peter Stasch, Dieter Neuser, Rainer Gross, Hans-Ulrich Kauczor, Hanjörg Just, Stanislav Kazda	558
Effects of long term treatment with an α_1 adrenoceptor blocker on cardiac hypertrophy, contractility, and myosin isoenzymes in spontaneously hypertensive rats: Nobuakira Takeda, Izuru Nakamura, Tadanari Ohkubo, Takaaki Iwai, Akira Tanamura, Makoto Nagano	565
Lovastatin prevents the impairment of endothelium dependent relaxation and inhibits accumulation of cholesterol in the aorta in experimental atherosclerosis in rabbits: Manohara P J Senaratne, Alan B R Thomson, C Tissa Kappagoda	568
Noradrenaline turnover and metabolism in myocardium following aortic constriction in rats: Pallab K Ganguly, Guy R Sherwood	579
Induced ventricular arrhythmias in regionally denervated porcine heart with healed myocardial infarction: Juan Cinca, Fernando Worner, Alfredo Baradaji, Antonio Salas-Caudevilla, J Soler-Soler	586
Reduced prostaglandin release from the stunned porcine heart - significance for attenuated reactive hyperaemia: Knut Arvid Kirkebøen, Gunnar Aksnes, Arnfinn Ilebekk	594
Relationship between placental blood flow and combined ventricular output with gestational age in normal human fetus: Martin G St John Sutton, Ted Plappert, P Doubilet	603
α_1 Adrenoceptor mediated signal transduction in neonatal rat ventricular myocytes: effects of prolonged hypoxia and reoxygenation: Toshifumi Kagiya, Krishna J Rocha-Singh, Norman Honbo, Joel S Karliner	609

No 8 AUGUST 1991

Angiotensin II induced phosphorylation of myosin light chain in vascular smooth muscle cells from spontaneously hypertensive and normotensive rats: Johanna Benze, Hsing-Yi Yang, Vivienne J Griffith, Clive Rosendorff	617
Cytosolic calcium staircase in ventricular myocytes isolated from guinea pigs and rats: Yoshihiro Hattori, Junji Toyama, Itsuo Kodama	622
Local adenosine infusion and myocardial oxygen supply and consumption in reperfused canine myocardium: Teresa Gerlock, Danielle Bentsen, Harvey R Weiss	630
Electrophysiological effect of varied rate and extent of acute in vivo left ventricular load increase: Hugh Calkins, Joseph H Levine, David A Kass	637
Functional and electrophysiological effects of oxidant stress on isolated ventricular muscle: a role for oscillatory calcium release from sarcoplasmic reticulum in arrhythmogenesis?: Michael J Shattock, Hiroshi Matsuura, David J Hearse	645
Metoprolol and ventricular repolarisation and refractoriness: lack of chronic adaptational class III effects in rabbit: Susan M Barr, B Stewart Manley, Stuart M Cobbe	652
Endothelium dependent vasodilatation following brief ischaemia and reperfusion in anaesthetised swine: Edward O McFalls, Dirk J Duncker, Rob Krams, Herb Ward, Charles Gornick, Pieter D Verdouw	659
Clinical testing of thermally stimulated cardiovascular oscillations in man: Ari Lindqvist, Pekka Parviainen, Jarmo Jalonen, Juhani Tuominen, Ilkka Välimäki, Lauri A Laitinen	666
Platelet function and conjugated diene concentrations in diabetic and non-diabetic survivors of acute myocardial infarction: Timothy J Hendra, David G Wickens, Thomas L Dormandy, John S Yudkin	676
No upregulation of digitalis glycoside receptor (Na,K-ATPase) concentration in human heart left ventricle samples obtained at necropsy after long term digitalisation: Thomas Andersen Schmidt, Peter Holm-Nielsen, Keld Kjeldsen	684
Effect of glyceryl trinitrate on distensibility of peripheral muscular arteries in humans is not mediated by prostaglandins: Rino Migliacci, Giuseppe Busti, Flaminio Flamini, Marino Marini, Carla Santucci, Giuseppe Giorgio Nenci, Paolo Gresele	692
Rapid communication:	
Importance of basal nitric oxide synthesis in regulation of myocardial blood flow: Zoltán Benyó, Gergely Kiss, Csaba Szabó, Csilla Csáki, Arisztid G B Kovách	700
Book review: Geigy Scientific Tables, Vol 5	704
Notice	704

No 9 SEPTEMBER 1991

Effects of pericardiectomy on canine pulmonary blood volume during hypervolaemia: Myron C Gerson, Marjorie Gabel, Noble O Fowler, Michael White	705
------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----

Pretreatment with the iron chelator desferrioxamine fails to provide sustained protection against myocardial ischaemia-reperfusion injury: B Ramesh Reddy, Joshua Wynne, Robert A Kloner, Karin Przyklenk	711
Influence of storage volume on functional recovery and metabolism of explanted hearts following cold cardioplegia: studies in the rat: S M Humphrey, Y S Choong, J E Buckman, J B Gavin	719
Prevention by DV-7028, a selective 5-HT₂ receptor antagonist, of the formation of coronary thrombi in dogs: Yoshiyuki Morishima, Tsuyoshi Tanaka, Kazuo Watanabe, Tomoko Igarashi, Megumi Yasuoka, Toshiro Shibano	727
Oxygen metabolism of the hypertrophic right ventricle in open chest dogs: Daiji Saito, Hideki Tani, Shozo Kusachi, Shinji Uchida, Naotsugu Ohbayashi, Morio Marutani, Kiyoaki Maekawa, Takao Tsuji, Shoichi Haraoka	731
Left ventricular β_1 and β_2 adrenoceptor mRNA expression in normal and volume overloaded human heart: Christer Sylvén, Peter Arner, Lena Hellström, Eva Jansson, Peter Sotonyi, André Somogyi, Mikael Brönnegård	737
Decrease in sulphated glycosaminoglycans in aortic dissection – possible role in the pathogenesis: Paulo Sampaio Gutierrez, Igor Correia de Almeida, Helena B Nader, Maria de Lourdes Higuchi, Noedir Stolf, Carl P Dietrich	742
In vivo correlation of myocardial metabolism, perfusion, and mechanical function during increased cardiac work: Mary Osbakken, Matthew D Mitchell, Danning Zhang, Avraham Mayevsky, Britton Chance	749
Haemodynamic effects of intracoronary neuropeptide Y in dogs: resistance to α adrenergic blockade: Robert K Stack, Randolph E Patterson	757
Specific non-β-adrenergic binding sites for ¹²⁵I-iodocyanopindolol in myocardial membrane preparations: a comparative study between human, rat, and porcine hearts: Reidar Bjørnerheim, Svein Golf, Vidar Hansson	764
Comparative significance in systolic ventricular interaction: Seiji Yamaguchi, Hiroshi Harasawa, Kun S Li, Dalei Zhu, William P Santamore	774
Atrial compliance determines the nature of passive atrial stretch and plasma atrial natriuretic factor in the conscious dog: Julian M Stewart, Daniel J O'Dea, George C Shapiro, Mrugesh B Patel, John T McIntyre, Michael H Gewitz, Carl T Hoegler, Jeffrey T Shapiro, Guillermo A Zeballos, Thomas H Hintze	784

No 10 OCTOBER 1991

Reduced cardiovascular sympathetic excitatory responses during iloprost infusion in conscious dogs: Ornella Rimoldi, Simona Pierini, Maria Rosa Pagani, Massimo Pagani	793
Inhibitory effect of spiradoline, a κ opioid receptor agonist, on Ca²⁺ induced contraction and the intracellular Ca²⁺ concentration in porcine coronary artery: Yuko Harasawa, Masaaki Kimura, Shigehiro Hayashi	802
Acute effects of amiodarone on ultrastructure and electrical activity of isolated guinea pig hearts: Gerhard Stark, Manfred Windisch, Eva M Haller, Ulrike Stark, Thomas Pieber, Ernst Pilger, Guenther J Krejs, Helmut A Tritthart	807
Pharmacological evaluation of early afterdepolarisations induced by sea anemone toxin (ATXII) in dog heart: Mohamed Boutjdir, Nabil El-Sherif	815

Absence of xanthine oxidoreductase activity in human myocardium: Thomas Podzuweit, Hilderose Beck, Antje Müller, Ralf Bader, Gerold Görlach, Hans H Scheld	820
Release of endothelium derived nitric oxide in relation to pressure and flow: Malte Kelm, Martin Feelisch, Andreas Deussen, Bodo E Strauer, Jürgen Schrader	831
Coronary pressure-flow, pressure-function, and function-myocardial oxygen consumption relations in postischaemic myocardium: Seinosuke Kawashima, Arata Satani, Sadaya Tsumoto, Tomohiro Kondo, Kiyomitsu Ikeoka, Masato Morita, Tadaaki Iwasaki	837
Evaluation of factors influencing myocardial infarct size in unconscious dogs: Godelieve Vandeplasse, Carlo Hermans, Johan Van Haecke, Luc Wouters, Marcel Borgers, Willem Flameng	844
A multivariate analysis of cardiac growth in human embryos: endocardial cushions and ventricular myocardium: Carlos Alberto Mandarim-de-Lacerda	855
An in oculo model for quantitation of vascular growth in the rat heart: Scott E Campbell, Karel Rakusan	861
Haemodynamic effects of arterial compliance, total peripheral resistance, and glyceryl trinitrate on regurgitant volume in aortic regurgitation: Stig A Slørdahl, Hroar Piene	869
Effect of pressure overload on cardiac Ca^{2+} antagonist binding sites of guinea pig. Comparison with the adaptational response of the hypertrophied rat heart: I Primot, E Mayoux, P Oliviero, D Charlemagne	875

No 11 NOVEMBER 1991

Effects of chronic alcohol ingestion on myocardial lipid and fatty acid composition in adult turkeys: István Soós, Andrea Facskó, István Édes, Éva Kiss, Miklós Csanády	881
Effects of oxygen tension on endothelium dependent responses in canine coronary microvessels: Paul R Myers, Judith M Muller, Miles A Tanner	885
Pulmonary blood volume and haemodynamic changes with legs raised in chronic lung disease patients: Francine V Schrijen, Anibal Henriquez, Roberto Candina, J M Polu	895
Development of mock circulation models for the assessment of counterpulsation systems: Christopher T Bowles, Samir S Shah, Kazunobu Nishimura, Colin Clark, Deborah V E Cumming, Charles W Pattison, John R Pepper, Magdi H Yacoub	901
Capillary supply and cardiac performance in the rabbit after chronic dobutamine treatment: Margaret D Brown, Olga Hudlicka	909
Augmented efficiency of regional myocardial work by ouabain: Joseph Kedem, Peter M Scholtz, Harvey R Weiss	916
Effects of vasoactive drugs upon haemodynamic power and input impedance in normal rats: Gordon Wright	923
Comparison of rabbit coronary arterial relaxation induced by acetylcholine and lemakalim: activation of ATP sensitive potassium channels: Canwen Jiang, Philip A Poole-Wilson, Peter Collins	930

Converting enzyme inhibition after experimental myocardial infarction in rats: comparative study between spirapril and zofenopril: Jan van Wijngaarden, Yigal M Pinto, Wiek H van Gilst, Pieter A de Graeff, Cees D J de Langen, Harry Wesseling	936
Adenosine infusion during early reperfusion failed to limit myocardial infarct size in a collateral deficient species: Mahiko Goto, Tetsuji Miura, Efsthios K Iliodoromitis, Edward L O'Leary, Row Ishimoto, Derek M Yellon, Osamu Imura	943
Characterisation of β_1 and β_2 adrenoceptor subtypes in the atrioventricular node of diabetic rat hearts by quantitative autoradiography: Kazuto Saito, Atsushi Kuroda, Hiromitsu Tanaka	950
Effect of left ventricular hypertrophy secondary to systemic hypertension on left coronary artery flow dynamics: Shinichiro Tadaoka, Yoshifumi Wada, Akihiro Kimura, Toyotaka Yada, Keiji Tamura, Kouichi Hasegawa, Shoso Nezuo, Toshitami Sawayama, Katsuhiko Tsujioka, Fumihiko Kajiya	955
Rapid communication:	
Reversal of angiotensin II effect on the cyclic adenosine 3',5' monophosphate response to isoprenaline in cardiac hypertrophy: Paul S Sunga, Simon W Rabkin	965

No 12 DECEMBER 1991

Cardiovascular Research – the first 25 years	969
Comparison of biphasic and monophasic defibrillation waveforms in an isolated rabbit heart preparation: Loraine K Holley, Roy M McCulloch	979
Characteristics of endocardial monophasic action potentials recorded from areas with fractionated bipolar electrograms in infarcted canine ventricular myocardium: Claus Schmitt, Thorsten Beyer, Martin Karch, Jürgen Metz, Thomas Hilbel, Maria Montero, Johannes Brachmann, Wolfgang Kübler	984
Importance of endothelial function in stenotic haemodynamic responses: William P Santamore, Deborah Morley, Thomas N Tulenko, Alfred A Bove	988
Effect of acute changes in aortic pressure on the coronary reserve: P G Antonatos, S G Foussas, S N Nanas, D G Karamoussalis, A G Theocharis, L P Anthopoulos, S D Mouloupoulos	995
Age related attenuation of the endothelium dependent relaxation to noradrenaline in isolated pig coronary arteries: Toyooki Murohara, Hirofumi Yasue, Masamichi Ohgushi, Naritsugu Sakaino, Michihisa Jougasaki	1002
The rabbit dual coronary perfusion model: a new method for assessing the pathological relevance of individual products of the ischaemic milieu: role of potassium in arrhythmogenesis: Michael J Curtis	1010
Neurohumoral regulation of excitation-contraction coupling in ventricular myocytes from cardiomyopathic hamsters: M Horackova, A Beresewicz, G Rowden, M Wilkinson	1023
Sympathetic neurotransmission in the Watanabe heritable hyperlipidaemic rabbit mesentery artery: A L Stewart-Lee, J Aberdeen, G Burnstock	1035
Intracoronary adenosine and papaverine do not increase myocardial systolic thickening: R Stefan Kiesz, J Dwane Gehman, Joseph A Gascho	1042
Rapid communication:	
Transient ischaemia induced by rapid cardiac pacing results in myocardial preconditioning: Agnes Vegh, Laszlo Szekeres, James R Parratt	1051

